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ABSTRACT

This study determined preservice teachers' perceptions about the characteristics of effective teachers and investigated factors (e.g., gender, ethnicity, age, year of study, area of specialization, and parental status) that may have influenced their responses. Participants were 219 students attending a large mid-Southern university. The students completed a questionnaire asking them to identify, rank, and define between three and six characteristics that they believed excellent teachers possess or demonstrate. A phenomenological analysis (i.e., method of constant comparison) of responses revealed several characteristics that many of the preservice teachers considered to reflect effective teaching. In order of endorsement level, the following six themes emerged from these characteristics: student-centeredness, enthusiasm for teaching, ethicalness, classroom and behavior management, teaching methodology, and knowledge of subject. A canonical correlation analysis revealed that females, college-level juniors, and minority students tended to endorse teaching methodology and teacher characteristics that were classified as ethical to a greater extent than did their counterparts, and to rate attributes that were associated with knowledge of subject and classroom behavior management to a lesser degree. Age served as a suppressor variable. The implications of these findings are discussed, as are recommendations for future research. (Contains 22 references.) (Author/SM)

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Characteristics of Effective Teachers: Perceptions of Preservice Teachers

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Paper presented at the annual meeting of the Mid-South Educational Educational Research Association (MSERA), Point Clear, Alabama, November 18, 1999.

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Abstract

The purpose of this study was to determine preservice teachers' perceptions about the characteristics of effective teachers, as well as to investigate factors (e.g., gender, ethnicity, age, year of study, area of specialization, and parental status) that may have influenced their responses. Participants were 219 students attending a large mid-southern university. These students were administered a questionnaire asking them to identify, to rank, and to define between 3 and 6 characteristics that they believed excellent teachers possess or demonstrate.

A phenomenological analysis (i.e., method of constant comparison) of responses revealed several characteristics that many of the preservice teachers considered to reflect effective teaching. In order of endorsement level, the following six themes emerged from these characteristics: (1) student-centeredness (79.5%), (2) enthusiasm for teaching (40.2%), (3) ethicalness (38.8%), (4) classroom and behavior management (33.3%), (5) teaching methodology (32.4%), and (6) knowledge of subject (31.5%). A canonical correlation analysis revealed that females, college-level juniors, and minority students tended to endorse teacher characteristics that were classified as ethical and teaching methodology to a greater extent than did their counterparts and to rate attributes that were associated with knowledge of subject and classroom and behavior management to a lesser degree. Age served as a suppressor variable. The implications of these findings are discussed, as are recommendations for future research.

Characteristics of Effective Teachers: Perceptions of Preservice Teachers

Throughout the 20th Century, there have been continuing attempts to identify characteristics of effective teachers. Currently, most textbook definitions reflect the notion that effectiveness is determined by using the parameters of classroom instruction. Thus, effective teachers are generally described as business-like in teaching, clear and specific in the use of language, and adept in the use of paralanguage. They sequence and schedule lessons that include detailed explanations and examples, provide immediate and corrective feedback, and ensure plenty of practice time. One need not look far into the literature to find specific characteristics identified through research.

Good and Brophy (1994) described effective teachers as active teachers who make maximum use of instructional time, present material in ways to meet student needs, monitor programs and progress, and plan opportunities for students to apply newly acquired concepts and skills. These teachers also re-teach when needed, maintain high but realistic goals, and provide motivation when introducing material both during and at the conclusion of lessons.

Effective teachers also have been described as those who encourage active student participation and make relevant assignments, arrange for plenty of successful engaged time, are skillful in using questions, and employ the use of wait-time when seeking student response (Finn, 1993; Good & Brophy, 1994; Redfield & Rousseau, 1981; Rosenshine & Stevens, 1986; Tobin, 1987).

In describing instructors who are effective, Wortruba and Wright (1975) provided the following characteristics: knowledgeable about and enthusiastic in presenting subject matter, organized in lesson presentation, flexible in using a variety of teaching strategies, effective in communication, positive in attitude toward students, and fair in assessment and grading procedures.

According to Cotton (1995), teachers are effective when they pre-plan curricula and integrate traditional school subjects where appropriate, provide clear expectations for students, carefully orient students to lessons, and are clear and focused in instruction. Apparently, effective teachers provide feedback and reinforcement, review and re-teach when needed, use questions effectively, monitor student progress, and use both traditional and alternative assessment procedures. Additionally, group designs meet student academic and affective needs, and there is efficiency in the use of instructional time and in the running of the classroom. Both critical and creative thinking are promoted, and workplace readiness skills are integrated into subject matter. Finally, these teachers provide incentives through recognition and rewards, display positive interactions with their students, and are consistent and equitable in their treatment of students.

A description of effective teachers as being strong in student-teacher relationships is offered by Wubbels, Levy, and Brekelmans (1997). Believing that solid student-teacher relationships are the very foundation for a positive classroom climate, these researchers posit that effective teachers are those who are flexible in their abilities to be both dominant and cooperative, empathetic yet in control. Teachers who are effective allow for pupil freedom and responsibility, and they reflect on student feedback so that their views of self closely resemble the perceptions of students. They are skilled in analyzing student needs for relationship behavior, and they are adept in meeting those needs.

The National Board for Professional Teaching Standards [NBPTS] was established in 1987 to strengthen the teaching profession and thereby improve learning. This board attempts to identify and to recognize teachers who

effectively promote student learning and who demonstrate high levels of knowledge, skills, dispositions, and commitments, as reflected in the following five core propositions: (1) teachers are committed to students and their learning; (2) teachers have extensive knowledge about the subjects they teach and how to teach these subjects to their students; (3) teachers are responsible for managing and monitoring student learning; (4) teachers reflect on their practice and learn from their experiences; and (5) teachers are members of learning communities. According to the NBPTS, these five elements form the core attributes of an effective teacher (NBPTS, 1987).

Although the literature abounds with information regarding teacher effectiveness, the majority of these articles do not represent primary studies. Of the formal investigations undertaken in this area, most have examined actual characteristics of effective teachers or have asked inservice teachers and educational theorists about their beliefs regarding effective teaching; that is, relatively few researchers have studied the *perceptions* of preservice teachers concerning the attributions of effective teachers. Moreover, most of the investigations have utilized qualitative techniques (e.g., interview) using small samples. A paucity of studies have incorporated qualitative and quantitative analyses within the same framework. This was the goal of the present investigation. Specifically, the purpose of this study was to investigate what preservice teachers view as important characteristics of effective teachers, with the intent of comparing their responses to descriptions provided in the literature. Also of interest was to investigate factors (e.g., gender, ethnicity, age, year of study, area of specialization, and parental status) that may have influenced their responses. It was hoped that findings from this study would help educators to determine the extent to which the perceptions of preservice teachers

are similar to those of more experienced individuals.

Method

Participants

Participants were 219 preservice teachers who were attending a mid-southern university. The majority of the sample was female (72.1%) and White (89.6%). Ages ranged from 19 to 50 (M = 24.2, SD = 6.1). With regard to year of study, participants were either juniors (46.0%), seniors (45.5%), or post-baccalaureate (8.4%). Nearly all students (94.7%) had attended a public high school, with the location of their schools being predominantly in either a suburban (39.6%) or a rural (43.7%) setting. Consistent with their backgrounds, the majority of students intended to teach either at a public-suburban school (39.5%) or at a public rural school (32.3%).

Instruments and Procedures

Participants were administered a questionnaire during class sessions asking them to identify, to rank, and to define between 3 and 6 characteristics that they believed excellent teachers possess or demonstrate. This questionnaire also extracted the following demographic information: gender, age, major, year of study (i.e., junior vs. senior vs. post-baccalaureate), ethnicity, type of high school attended by respondent (i.e., public vs. private), area that high school was attended (i.e., suburban vs. urban vs. rural), type of school in which the student would most like to teach (i.e., public-urban vs. public-suburban vs. public-rural vs. private-church sponsored vs. private-non church sponsored), and whether the respondent was a parent of a school-aged child.

Analysis

A mixed-methodological analysis was undertaken to analyze the data. This form of analysis involved two stages. The first step consisted of a

phenomenological mode of inquiry (*inductive, generative, and constructive*) to examine the responses of students regarding their perceptions of characteristics of effective teachers (Goetz & Lecompte, 1984). In order to determine the percentage of students who cited each attribute, these data were *unitized;* that is, units of information served as the basis for defining a significant statement (Glaser & Strauss, 1967). Each unit corresponded to a unique characteristic (Lincoln & Guba, 1985).

The *method of constant comparison* (Glaser & Strauss, 1967) was utilized in order to categorize units that appeared similar in content. Each category represented a distinct theme. This method of analysis revealed a number of themes relating to students' perceptions of characteristics of effective teachers.

The second stage of the analysis involved utilizing descriptive and inferential statistics to analyze the themes. With respect to the latter, a series of Fisher's Exact tests was used to determine which background variables were related to each of the themes. Additionally, a factor analysis was undertaken to ascertain the underlying structure of these themes. Finally, a canonical correlation analysis was performed to examine simultaneously the relationship between the themes and the demographic variables. Canonical correlation analysis is utilized to determine the relationship between two sets of variables when each set contains more than one variable (Cliff & Krus, 1976; Darlington, Weinberg, & Walberg, 1973; Thompson, 1980, 1984). For each canonical coefficient, standardized canonical function coefficients and structure coefficients were computed.

Results

Table 1 presents the themes that emerged from students' responses. It can be seen that the following six themes surfaced from their responses: student-centeredness, enthusiasm for teaching, ethicalness, classroom and behavior

management, teaching methodology, and knowledge of subject. Interestingly, student-centeredness was the most endorsed theme, with nearly 80% of the sample citing one or more traits that fell into this category.

Insert Table 1 about here

A series of Fisher's Exact tests, using the Bonferroni adjustment to control for Type I error ($p < .05$), indicated that females tended to place more weight on student-centeredness as a measure of teacher effectiveness than did males, whereas more males than did females tended to endorse management style. Also, older students tended to cite more frequently attributes related to ethicality. Finally, Caucasian-American students tended to endorse management skills more than did minority students.

An exploratory factor analysis was used to determine the number of factors underlying the six themes. Specifically, a maximum likelihood (ML) factor analysis was used with oblique rotations. This technique, which gives better estimates than does principal factor analysis (Bickel & Doksum, 1977), is perhaps the most commonly used method of common factor analysis (Lawley & Maxwell, 1971). The ML factor analyses revealed a four-factor solution which explained 74.7% of the total variance. Loadings of items on each factor are presented in Table 2. Using a cutoff correlation of 0.3 recommended by Lambert and Durand (1975) as an acceptable minimum loading value, it can be seen from this table that the following themes loaded significantly on the first factor: classroom and behavior management and enthusiasm; the following themes loaded on the second factor: knowledge of subject and student-centeredness; the following theme loaded on the third factor: ethicalness; and the following theme loaded on the fourth factor:

teaching methodology. Clearly, the first factor can be labeled classroom atmosphere. The second factor can be termed knowledge of subject and student. Factor 3 presents ethicalness. Finally, the fourth factor denotes teaching methodology.

Insert Table 2 about here

A canonical correlation analysis was undertaken to examine the relationship between the six themes and a selection of demographic variables. The six themes were treated as the multivariate set of variables, whereas the following variables were utilized as the dependent multivariate profile: gender, age, year of study, ethnicity, type of high school attended by respondent, area that high school was attended, and whether the respondent was a parent of a school-aged child.

The number of canonical functions (i.e., factors) that can be generated for a given dataset is equal to the number of variables in the smaller of the two variable sets. Because three six themes were correlated with seven independent variables, six canonical functions were generated.

The canonical analysis revealed that the six canonical correlations combined were statistically significant ($p < .05$). However, when the first canonical root was excluded, the remaining five canonical roots were not statistically significant. Similarly, when the first and second canonical roots were excluded, the remaining canonical root was not statistically significant. Indeed, removal of subsequent canonical roots did not lead to statistical significance. Together, these results suggest that the first canonical function was statistically significant, but the remaining five roots were not statistically significant. However, because the calculated probabilities are sensitive to

sample size, particular attention should be paid to the educational (practical) significance of the obtained results (Thompson, 1980). The educational significance of canonical correlations typically are assessed by examining their size (Thompson, 1980, 1984, 1988, 1990). The canonical correlation indicates how much variance the sets of weighted original variables share with each other (Thompson, 1988). In the present study, the first canonical correlation (R_{c1} = .44) appeared to be moderately educationally significant, contributing 19.4% (i.e., R_{c1}^2) to the shared variance. Consequently, only the first canonical correlation was interpreted.

Data pertaining to the first canonical root are presented in Table 3. This table provides both standardized function coefficients and structure coefficients. Using a cut-off correlation of 0.3 (Lambert & Durand, 1975), the standardized canonical function coefficients revealed that ethicalness, knowledge of subject, teaching methodology, and classroom and behavior management made important contributions to the set of themes--with classroom and behavior management being the major contributor. With respect to the demographic set, gender, age, year of study, and ethnicity made noteworthy contributions.

Insert Table 2 about here

The structure coefficients revealed that ethicalness, knowledge of subject, teaching methodology, and classroom and behavior management made important contributions to the first canonical variate. The square of the structure coefficient indicated that these variables explained 31.1%, 9.5%, 10.3%, and 48.2% of the variance, respectively. With regard to the demographic cluster, gender made the greatest contribution, with ethnicity and year of study making moderate

contributions. The square of the structure coefficient indicated that gender, ethnicity, and year of study explained 36.4%, 26.4%, and 20.9% of the variance, respectively.

According to Thompson (in press), variables with small structure coefficients, but standardized coefficients which are large in absolute value magnitude indicate that they are *suppressor* variables in the canonical correlation model. Suppressor variables are variables that assist in the prediction of dependent variables due to their correlation with other independent variables (Tabachnick & Fidell, 1996). In the present study, age appeared to serve as a suppressor variable because the standardized coefficients associated with this variable was large, whereas its corresponding structure coefficient was relatively small. It is likely that age was a suppressor variable because of its relationship with one or more of the other demographic variables. In particular, age had an extremely large correlation with the respondent's parental status ($r = .78$, $p < .0001$)--with older students having a greater tendency to be a parent. Thus, age improved the predictive power of demographic variables by suppressing variance that is irrelevant to this prediction, as a result of its relationship with these two variables.

In sum, the results of the canonical correlation analysis suggest that females, college-level juniors, and minority students tended to endorse teacher characteristics that were classified as ethical and teaching methodology to a greater extent than did their counterparts and to rate attributes that were associated with knowledge of subject and classroom and behavior management to a lesser degree. Age served as a suppressor variable.

Discussion

The purpose of the present study was to determine preservice teachers'

perceptions about the characteristics of effective teachers, as well as to investigate factors that may have influenced their responses. Using qualitative and quantitative analytical techniques, the perceptions held by preservice teachers represent a multidimensional construct. Specifically, perceptions were identified which led to the following six themes: student-centeredness, enthusiasm for teaching, ethicalness, classroom and behavior management, teaching methodology, and knowledge of subject.

Examples of student-centeredness include "love of students," "sensitive," "supportive," "kind," "caring," and "patient"; descriptors of enthusiasm for teaching are "love of subject," "commitment," "untiring," and "true love of job"; examples of ethicalness include "impartial," "unbiased," "honesty," and "fair"; words that describe classroom and behavior management are "authoritative," "good disciplinarian," "observant," and "leadership"; examples that characterize teaching methodology are "knowing how to teach," "variety of teaching methods," and "prompt feedback"; finally, knowledge of subject include descriptors such as "intelligent," "knowledge," and "smart."

Student-centeredness represented descriptors that received the greatest endorsement. Specifically, nearly 80% of students noted one or more characteristics representing this theme. This suggests that the current sample, in general, rate student-centeredness as being the most common characteristic of effective teachers. The remaining five themes were endorsed by a similar proportion of students--between 30% and 40% of the preservice teachers.

The six themes, which loaded on four factors, dealt with teacher characteristics (i.e., student-centeredness and enthusiasm for teaching), or were either content-based (i.e., ethicalness and knowledge of subject) or process-related (i.e., teaching methodology and classroom and behavior management). This

provides further evidence that the perceptions of teachers represent a complex phenomena.

Fisher's exact tests indicated that females tended to place more weight on student-centeredness as a measure of teacher effectiveness than did males, whereas more males than did females tended to endorse management style. Older students tended to cite more frequently attributes related to ethicality, and Caucasian-American students tended to endorse management skills more than did minority students. These findings, coupled with the result that gender, age, ethnicity, and year of study were related to the teacher characteristics of ethicalness, teaching methodology, knowledge of subject, and classroom and behavior management, indicate the importance of not assuming that all preservice teachers have the same perceptions about what makes a teacher effective. To the extent that perceptions and beliefs drive actions, the findings from this study not only have implications for student teachers, but also for teacher trainers, inservice teachers, administrators, and for public k-12 students themselves.

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Table 1

Themes Emerging from Preservice Teachers' Perceptions of the Characteristics of Effective Teachers

Theme	Endorsement Rate (%)
Student-centeredness	79.5
Enthusiasm for teaching	40.2
Ethicalness	38.8
Classroom and behavior management	33.3
Teaching methodology	32.4

Table 2:

Summary of Themes and Factor Loadings from Maximum Likelihood Oblique Factor Analysis: Four-Factor Solution

	Factor Loading			
Theme	1	2	3	4
Enthusiasm for teaching	.70			
Classroom and behavior management	-.73			
Knowledge of Subject		.57		
Student-centeredness		-.79		
Ethicalness			-.85	
Teaching methodology				.85

% of total variance accounted for by the solution = 74.7

Only loadings with large effect sizes are displayed, using a cut-off loading of 0.3 recommended by Lambert and Durand (1975).

Table 3

Canonical Solution for First Function: Relationship Between Six Themes and Selected Demographic Variables

Variable	Standardized Coefficient	Structure Coefficient	Structure^2
Theme:			
Student-centeredness	.146	.091	.008
Ethicalness	.581*	.558*	.311
Knowledge of subjects	-.300*	-.309*	.095
Teaching methodology	.345*	.321*	.103
Classroom and behavior management	-.648*	-.694*	.482
Enthusiasm for teaching	-.173	-.063	.004
Demographic Variable:			
Gender	.423*	.603*	.364
Age	.309*	.104	.011
Year of study	-.648*	-.457*	.209
Ethnicity	-.592*	.514*	.264
Type of high school attended	.155	.231	.053
Area of high school attended	.293	.220	.048
Parental status	-.114	.112	.013

* loadings with large effect sizes